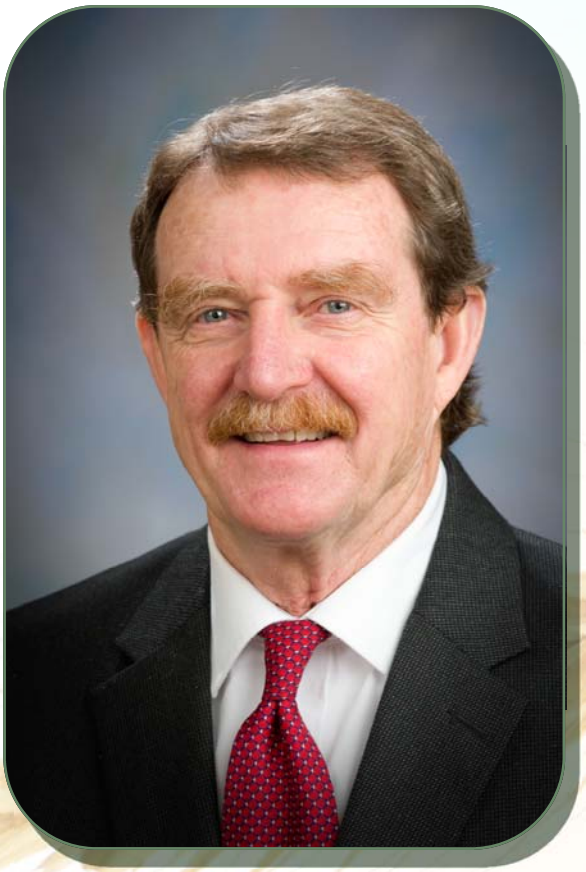
Department of Soil & Crop Sciences

Exciting Careers for a Sustainable Future

Colorado State University

College of Agricultural Sciences

Welcome to the Department of Soil and Crop Sciences



Dr. Mark Brick
Department Head

The Department of Soil and Crop Sciences is focused on education, research, and outreach to solve the world's most pressing food production issues and crucial matters about Earth, its ecosystems, and their services. Our faculty and staff apply research-based solutions to benefit Colorado and the world. We offer academic programs to prepare students to address national and global crop production, sustainability, and environmental quality challenges such as waste management, water quality, and reclamation of drastically disturbed lands. There are numerous opportunities for students to be involved in cutting edge research related to global food production and ecosystem function and protection. In fact, our world-class faculty receives an average of $7 million in research grants each year.

Students can pursue B.S. degrees in Soil and Crop Sciences and select from 9 concentrations that provides specialized training in new and emerging areas of the Soil, Crop and Environmental Sciences. For graduate students, we offer M.S. and Ph.D. degrees. We invite you to join the more than 160 students who call our department their home. Along with an outstanding learning experience, we pledge personal and individual attention. Many of our students r eceive scholarship support. Students in our department are also offered internships and study abroad opportunities to help provide a better understanding of other cultures around the world.

Thank you for your interest in Soil and Crop Sciences at Colorado State University. If you are a prospective student and want to visit our department on the beautiful Colorado State University campus, we would be delighted to hear from you.

A Major in Soil and Crop Sciences Prepares You to:

- Help solve challenges facing tomorrow's crop production systems
- Improve environmental quality
- Restore and conserve soil and water resources
- Build a base in organic agriculture production

A major in Soil and Crop Sciences provides you with hands on experiences in the lab, the classroom, the field, the farm, and the greenhouse where you can learn about plant breeding and genetics, seed science, soil ecology, soil restoration and conservation, international soil and crop sciences or other exciting areas of food production. A primary concern to all soil and crop scientists is the protection and conservation of our natural resources. The Soil and Crop Sciences program places special emphasis on establishing quality career skills, involvement in research and extension activities, hands-on experience and a fundamental understanding of basic sciences.

- **Minor: Soil Restoration and Conservation** - The purpose of the minor in soil restoration and conservation is to give students with appropriate soil chemical, physical and biological sciences background an opportunity to formalize their interests in an organized course of study.
- **Minor: Organic Agriculture** - Our program builds on a base of fundamental agricultural sciences with additional courses on organic agricultural methods, management and marketing.
- **Minor: Soil Science** - This minor is offered to students desiring to complement their major with a strong knowledge base in the principles and applications of soil science.
- **Second Major with Agricultural Business** - A unique curriculum that creates both a major in Soil and Crop Sciences as well as Agricultural Business prepares students to integrate crop production theory with sound business practices.
- **Second major with Agricultural Education** - A specialized curriculum that culminates with a degree in Soil and Crop Sciences as well as Agricultural Education. Students effectively integrate Soil and Crop Science principles with teaching skills and graduates are prepared and qualified to teach agriculture in Colorado.

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Career Opportunities in Soil & Crop Sciences Are on the Rise:

- **Agronomic Production Management** - Careers in production agriculture or agribusiness include use of new tools such as precision agriculture and biotechnology and require a unique understanding of interdisciplinary principles.
- **Applied Information Technology** - Careers utilize advanced information technology for crop production and soil management. These tools are essential for conserving and distributing resources, therefore minimizing environmental impact while maximizing yield and profit.
- **International Soil and Crop Science** - Exciting and challenging career opportunities exist with government and non-government organizations who work to understand, advise and educate about the agroecological practices compatible with developing nations.
- **Plant Biotechnology, Genetics and Breeding** - See following page for more information.
- **Soil Ecology** - See following page for more information.
- **Soil Restoration and Conservation** - Exciting and dynamic careers exist that restore highly disturbed ecosystems to a more environmentally stable and productive state. Conservation organizations also offer opportunities in the public and private sector.

Let's Work for a Green & Sustainable Future!

Soil Ecology

The soil ecology concentration emphasizes the interdisciplinary nature of soils through the study of soil organisms and their interactions with each other and the soil physical and chemical environment. These interactions affect the cycling of elements including carbon and nitrogen, the release (or consumption) of greenhouse gases, water quality, soil formation and structure, and plant productivity.

Plant Biotechnology, Genetics and Breeding

An exciting career in the rapidly growing field of biotechnology includes opportunities for plant research, plant breeding, product development and sales. The curriculum places emphasis on genetics and the applications of biotechnology for crop improvement. A career in plant biotechnology will provide you with a strong sense of fulfillment as you improve food production, security and safety, as well as preserve our environment and precious natural resources. At this time there are more opportunities for

Interdisciplinary Minor in Organic Agriculture

Are you concerned about pesticides in the environment or interested in alternative food production systems? A new minor in organic agriculture focuses on emerging research and fundamental science principles so graduates are prepared to engage in the fastest growing sector of agriculture!

Careers in this developing field require a solid grasp of agricultural science, economics, and ecology. Recent graduates are currently employed as certification specialists, community educators, farm managers, international consultants and national retail outlet organic specialists.

Study Abroad!

Organized programs are available for students to gain global awareness through study abroad activities. social, cultural, language and academic interests broaden any student's background. Recent students have studied in Spain, Madagascar, New Zealand and Australia. Study abroad programs are available to students in the College of Agricultural Sciences. Because the knowledge of at least one other culture is valuable in understanding our own, students are encouraged to study outside the United States as part of their overall program at Colorado State University. There are active programs in many countries. Students interested in study abroad should plan in advance by discussing opportunities with their academic adviser; the Associate Dean of Academic Affairs; or by visiting the Office of International Programs in Laurel Hall at www.international.colostate.edu.

Career Internships

The Department of Soil and Crop Sciences encourages and assists undergraduate students in obtaining off-campus, career related experiences. Through internships, students can earn credit while being employed with a variety of businesses, companies, agencies and organizations directly related to their career interests.

Internship opportunities include:

- Crop Consulting
- Fertilizer, Seed and Agricultural Chemical Sales and Marketing
- Environmental Consulting
- Research Assistant

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Faculty Contacts

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Information, Opportunities and Fun Stuff!

Leadership Development

The Agronomy Club, also known as the Ag Club, is an undergraduate student organization that empowers students to:

- Cultivate personal interests
- Interact with faculty and fellow students in both social and professional settings
- Be part of a nationally recognized program
- Join fundraising endeavors to fund Annual Meeting trips
- Tour extension and research facilities

In addition, the club sponsors seminars, social gatherings and educational projects that contribute to career and leadership development.

Scholarships, Awards and Jobs

Numerous scholarships and awards are available through the Department of Soil & Crop Sciences and the College of Agricultural Sciences along with opportunities to work part-time on teaching, research and extension projects!

CSU Agronomy Club

The purpose of the CSU Agronomy Club is to gather together students with similar interests for their common benefit and advancement. The Agronomy Club provides a chance for students to take an active part in their department through fund-raising projects, social events, and scholastic activities.

Anyone interested in the field of agriculture is welcome to join and become an active member of the CSU Agronomy Club.

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